

### **Amendments to the Specification:**

Please replace the second paragraph after the section heading on page 4 with the following replacement paragraph:

This object is solved according to the invention by ~~the~~ a novel tilting system ~~with the features according to the independent patent claim 1, the tilting system with the features according to the independent patent claim 14, the tilting system with the features according to the independent patent claim 26, as well as the~~ by an observation device ~~with the features according to patent claim 45 that includes said tilting system. According to one aspect, the tilting system is provided for an observation device with at least one objective device and at least one optical device for passing at least one beam path from an entrance region to an exit region of the tilting system, wherein the optical device has at least one optical element in the form of a prism for tilting and for image reversion of the beam path as well as for guiding it further, wherein an optical element in the form of a 180° prism is provided for image reversion in the beam path and that the 180° prism is arranged crosswise to the tilting system extending from the entrance region to the exit region, wherein at least one deviating prism is provided in at least one beam path, upstream and downstream of the 180° prism, as viewed from the entrance region of the tilting system, wherein two axes of rotation are provided running perpendicular to the direction of the beam entering into the tilting system in its entrance region, around which the 180° prism and the at least one deviating prism are moved relative to one another, wherein the system is formed for the passage of two beam paths, whereby in each of the two beam paths at least one objective device and at least one optical device are provided and whereby a device for adjusting the distance between the two beam paths is provided in the exit region of the tilting system, wherein the device for adjusting the distance is formed as a lens system~~

and that a lens system is provided in each of the two beam paths, and wherein the lens system is provided in at least one axis of rotation around which the 180° prism and the at least one deviating prism are moved relative to one another. Other advantages, features, details, aspects and effects of the invention result from the subclaims, the description, as well as the drawings. Features and details, which are described in connection with one of the different aspects of the invention relative to the swing-in tube, thus always apply also, of course, in connection with the other aspects of the invention relative to the swing-in tube. Likewise, features and details, which are described in connection with the swing-in tube according to the invention, also apply, of course, in connection with the observation device according to the invention and vice versa.

Please delete the third paragraph after the section heading on page 4 of the specification, as well as the subsequent paragraphs on pages 5 through 22 of the specification.

Please add the following paragraphs after the section heading on page 25 of the specification and before the first paragraph on page 25 of the specification:

The central basic concept of the present invention consists of providing a movable tilting system. However, the invention is not limited to specific configurations and fields of application for the tilting system. For example, but not exclusively, the tilting system can be formed or can be used as a tube, in particular, as a swing-in tube, as a collapsible telescope or the like.

According to the first aspect of the invention, a tilting system is provided for an observation device, in particular for a microscope, with at least one objective device and at least one optical device for guiding at least one beam path from an entrance region to an exit region of the tilting system, wherein the optical device has at least one optical element in the form of a prism for tilting and for image reversion of the beam path as well as for guiding it further into at least one

ocular device. The tilting system according to the invention is hereby characterized in that an optical element is provided in the form of a  $180^\circ$  prism for image reversion in the beam path, and that the  $180^\circ$  prism is arranged crosswise to the extended position of the tilting system.

This configuration of the tilting system makes it possible to be able to obtain a short mechanical structural length of the tilting system by suitable tilting of the optical beam path or beam paths, wherein at the same time, the requirement of being able to swing the tilting system remains. In addition, the tilting system can be produced in a particularly cost-favorable manner, since the use of very expensive optical elements, for example, special prisms, can be dispensed with. In particular, such a tilting system can be configured advantageously as a  $180^\circ$  tilting system.

It is achieved by the configuration of the tilting system according to the invention that no rotation of the image occurs when it is swung into a desired position. Rather, the image remains in an upright position during the entire movement. In addition, an image also may be rotated by the degree of swinging conducted each time with the tilting system according to the invention.

The beam path is tilted in a particular manner by the tilting system according to the invention, whereby a shorter mechanical structural length of the entire tilting system becomes possible. This is done by means of specially configured reflection prisms, as will be explained in detail later in the further course of the description, as well as by a special arrangement of the optical elements present in the optical device. Due to the particular arrangement or configuration at least of individual optical elements, the beam path is shifted into the width of the tilting system, whereby its mechanical end, that is, its exit region, moves closer to the observation device. In addition to the short structural length, a cost-favorable and simple construction of the individual optical elements is possible with simultaneously good optical quality, by means of the tilting

system according to the invention.

A basic concept for the tilting system according to the invention consists of the fact that separate optical elements that were previously necessary for image reversion, for example, special prisms, can be dispensed with, since such an image reversion can already be achieved by a suitable arrangement of the remaining optical elements. The image reversion is achieved according to the invention by the fact that the  $180^\circ$  prism—previously arranged lengthwise—is now arranged crosswise to the extended position of the tilting system. The extended position thus corresponds to the dimension of the tilting system from its entrance region up to its exit region. The entrance region of the tilting system involves the region which adjoins the observation device. In the entrance region, the tilting system is joined with the observation device, for example, via a suitable interface. The exit region of the tilting system involves that region in which the beam path exits the tilting system and, for example, enters into a subsequent ocular device.

Advantageously, the optical elements used in the tilting system can be configured in the form of prisms. This applies both to the aspect of the invention described here, as well as also to the other aspects of the invention explained below.

Reflection prisms can be used particularly advantageously for tilting an optical beam path, since, with the help of the total reflection, they do not have reflection losses, in contrast to mirror surfaces. Due to their structural form, reflection prisms can be particularly easily introduced on a mount and then can be well adjusted, operations that would require a greater expenditure in the case of mirror surfaces.

Advantageously, at least one deviating prism can be provided in the beam path, viewed from the entrance region of the tilting system, upstream and/or downstream of the  $180^\circ$  prism.

These deviating prisms have the task of tilting the beam path passing through the swing-in tube in the manner provided each time. However, the invention is not limited to specific types of deviating prisms. For example, but not exclusively, the at least one deviating prism can be configured as a  $90^\circ$  prism. A  $90^\circ$  prism involves a type of prism, which deflects a beam path by  $90^\circ$  to one side and mirrors the input image at one axis. Likewise, it is possible that the deviating prism is configured as a  $90^\circ$  mirror.

Advantageously, two axes of rotation can be provided running perpendicular to the direction of the beam entering the tilting system in its entrance region, around which axes the  $180^\circ$  prism and the deviating prisms are moved relative to one another. In this way, it can be assured that a swinging to the desired extent is also possible with the tilting system, without the occurrence of a rotating movement of the image. For example, due to the above-described configuration of the tilting system, it is possible to design the latter in the form of a  $180^\circ$  tilting system, so that due to the named arrangement, a swinging by the desired plus or minus  $90^\circ$  is possible in such a case. This swinging is provided around both axes of rotation, which are coupled preferably with one another in an appropriate manner for this purpose.

The  $180^\circ$  prism arranged crosswise in the first axis can be deflected upward or downward, for example, from its horizontal position, by  $45^\circ$  each time. Relative to this, a deviating prism moves simultaneously in the second axis of rotation, also by  $45^\circ$  each time. Together, these actions produce the required angle of plus or minus  $90^\circ$ .

Advantageously, the tilting system can be designed for passing through two beam paths, whereby at least one objective device and at least one optical device are provided in each beam path. In this way, a stereoscopic (3-dimensional) image can be produced by means of the tilting

system, wherein one beam path is separately generated and is used for each eye of the user (binocular property).

In addition, it is advantageously provided that a device for adjusting the distance between the two beam paths is provided in the exit region of the tilting system. This preferably involves a device for adjusting the pupil distance (pupil distance = distance between the two eyes) of the user of such a tilting system.

The adjustment can be provided, for example, via a central adjusting knob.

The invention is not limited to specific design variants of the device for adjusting the distance between the two beam paths. For example, but not exclusively, the device for adjusting the distance can be designed as a lens system, and, advantageously, a lens system is provided in each beam path. However, cases of application are also conceivable in which only one such lens system is provided in a single beam path. Such a lens system generates a beam path that is non-finite/infinite. Therefore, it is possible by the use of a lens system to actuate a linear displacement without causing a shift of the image position. In order to adjust a desired distance, the optics used in the lens system for both beam paths must be moved synchronously outward or inward.

Preferably, the lens system is provided in at least one axis of rotation, around which the 180° prism and the deviating prism can be moved relative to one another.

In another configuration, the device for adjusting the distance can be formed in such a way that at least one rhombic prism that can be rotated around an axis of rotation is provided in the beam path upstream of the exit region of the tilting system. A rhombic prism is basically characterized by the fact that it does not generate an image rotation, but rather an image displacement is produced, which is established via the size of the prism. A rhombic prism additionally has the advantage that

it is particularly insensitive in the case of adjustment and that its production is associated with particularly low manufacturing costs.

Unlike a lens system, when a rhombic prism is used, the linear movement is replaced by a rotational movement, so that other expensive structural elements are not needed for this movement. The use of a rhombic prism has the advantage that this optical element does not generate a rotation of the image, since this is achieved by the  $180^\circ$  prism placed upstream.

The rhombic prism is placed in the beam path, preferably at the last optical element of the optical device and produces an image displacement. Thus it is possible to adjust the desired distance by a rotational movement of the rhombic prism.

Of course, other embodiments of the device for adjusting the distance are also conceivable, such as those which will be described below in connection with the other aspects of the invention, so that the corresponding embodiments are referred to in this respect also and reference is made to these herewith.

Advantageously, the objective device can have at least one positive and at least one negative objective element. In this case, the objective elements are comprised of appropriately configured lenses or lens systems, for example. Advantageously, the positive objective element can be provided in the entrance region of the beam path in the tilting system.

The negative objective element can be provided in the beam path at different sites. For example, it is conceivable that the negative objective element is provided in the beam path after the  $180^\circ$  prism, viewed from the entrance region of the tilting system.

It may also be provided that the negative objective element is placed in the beam path between the  $180^\circ$  prism and the subsequent deviating prism. In another configuration, the negative

objective element may be provided in the beam path between the deviating prism following the 180° prism and the rhombic prism. Preferably, the negative objective element can lie in the axis of rotation of the rhombic prism. It is achieved therewith that the negative objective element lies closer to the intermediate image produced in the tilting system.

According to a second aspect of the invention, a tilting system is provided for an observation device, in particular for a microscope, with at least one objective device and at least one optical device for guiding at least one beam path from an entrance region to an exit region of the tilting system, wherein the optical device has at least one optical element in the form of a prism for tilting and for image reversion of the beam path as well as for guiding it further into at least one ocular device. This tilting system is hereby characterized according to the invention in that at least one optical element in the form of a 180° prism is provided, which the beam passes through after it has entered the tilting system, and by which the beam is guided back in the direction of the entrance region and the at least one prism is provided for image reversion.

It is also possible by this configuration of the tilting system according to the invention to provide a particularly short mechanical structural length of the tilting system by suitable tilting of the optical beam path in order to swing the tilting system to the desired extent for any remaining requirement. In particular, it is possible to pivot it by 180° with the tilting system according to the invention. It is further assured by the configuration of the tilting system that a rotation of the image does not occur when swinging to the desired position, but rather that it remains upright during the entire movement.

Also, by means of the tilting system according to the second aspect of the invention, a solution is provided, the principle of which is based on an alternative tilting of the beam path, in



order to make possible in this way a shorter mechanical structural length of the tilting system. This is achieved by a special arrangement of the optical elements employed in the tilting system, whereby the beam path is tilted in such a way that the mechanical end of the tilting system moves closer to its entrance region, which lies in the region of the observation device. In addition to providing a short structural length, the tilting system can be produced in a cost-favorable and structurally simple manner with an optical quality that is equally good.

A special prism, which will be explained below in detail in the further course of the description, is provided for image reversion. The optical device of the tilting system is, of course, configured in such a way that, after entering the tilting system, the optical beam path first passes through an optical element in the form of a  $180^\circ$  prism, whereby the beam path is guided back downward, i.e., in the direction of the entrance region of the tilting system, so that a shortening of the mechanical structural length of the entire tilting system is achieved. Only after passing through this  $180^\circ$  prism does the beam path possibly pass through other tilting elements before an image reversion subsequently occurs through an appropriate prism.

Preferably, the at least one prism for image reversion can be arranged downstream to the  $180^\circ$  prism in the beam path, viewed from the entrance region of the tilting system.

The invention is not limited to specific embodiments for the prism for image reversion. For example, but not exclusively, the at least one prism for image reversion can be formed as a poro prism of the second type. Such a prism is used in particular for image rotation by  $180^\circ$ , with additional shift of the beam path. Such a prism is designed preferably as a cemented element.

Preferably, two prisms can be provided in the beam path for image reversion.

In another configuration, at least one deviating prism can be provided in the beam path

between the  $180^\circ$  prism and the at least one prism for image reversion. Likewise, it is, of course, also conceivable that two or more deviating prisms are provided in the beam path. Thus, the invention is not limited to specific embodiments for the deviating prism. For example, but not exclusively, the deviating prism can involve a  $90^\circ$  prism as has already been described above, or a  $90^\circ$  mirror.

In order to avoid image rotations, preferably two or more prisms can be arranged simultaneously by moving around axes of rotation. This is particularly meaningful when an image rotation cannot be obtained with a movement of the tilting system into its final position--for a  $180^\circ$  tilting system, for example, into the final position of plus or minus  $90^\circ$ .

In particular, if a poro prism of the second type is used as the prism for image reversion, the remaining optics must reproduce the initial image without rotation during the movement, i.e., an image rotation must not be introduced.

For example, it may be provided that two axes of rotation pass through the  $180^\circ$  prism, wherein, preferably, one axis of rotation is provided in the optical entrance beam and wherein one axis of rotation is provided in the optical exit beam of the  $180^\circ$  prism. The axes are preferably parallel to one another and are spaced at a distance dependent on the length of the  $180^\circ$  prism. If the tilting system is configured as a  $180^\circ$  tilting system, the first axis of rotation, for example, makes it possible that the prism is moved by plus or minus  $45^\circ$ . The deviating prism (for example, a  $90^\circ$  prism) that is suspended on this prism in the second axis of rotation is moved relative thereto at the same angle in the opposite direction, so that the optical beam running toward this prism always points in the same direction.

In addition, it may be provided that the two deviating prisms can also be arranged relative

to one another so that they move around one axis of rotation. This axis of rotation preferably lies in the optical beam running toward the  $180^\circ$  prism. Then a swinging of plus or minus  $90^\circ$  is executed with this rotational movement.

It is particularly provided that the rotational speed of this third axis is precisely double that of the first or second axes described above. For example, if the  $180^\circ$  prism is deflected by  $45^\circ$ , another deviating prism must thus rotate by  $90^\circ$  in the third axis.

Advantageously it can be provided that the tilting system is designed for the passage of two beam paths, whereby in each beam path at least one objective device and at least one optical device are provided and whereby a device for adjusting the distance between the two beam paths is provided in the exit region of the tilting system. In this way, it is achieved, first of all, that stereoscopic beam paths as have already been described above can be generated with the tilting system.

The invention again is not limited to specific embodiments of the device for adjusting the distance between the two beam paths. As has already been explained, this device particularly involves a device for adjusting the pupil distance.

For example, for adjusting the distance between the two beam paths, the at least one prism for image reversion for each beam path can be arranged so that it can rotate around an axis of rotation. Consequently, the distance is adjusted in such a case via rotational movements of the prisms for image reversion around a corresponding axis of rotation. Of course, other embodiments are also conceivable for the device, whereby in this respect, in particular, reference is made to the other configurations, which are described in connection with the other aspects of the invention relative to the tilting system.

Preferably, the objective device can be provided in the beam path upstream of the 180° prism.

In addition, in a case in which the tilting system is configured in the way described above, provision can be made that the ocular device adjoining the tilting system has available appropriate connection elements, which connect the individual ocular supports with one another, so that a constant distance is maintained between the two beam paths during the swinging movement, by means of such connection.

According to a third aspect of the invention, a tilting system is provided for an observation device, in particular for a microscope, with at least one objective device and at least one optical device for guiding at least one beam path from an entrance region to an exit region of the tilting system, wherein the optical device has at least one optical element in the form of a prism for tilting and for image reversion of the beam path as well as for guiding it further in at least one ocular device. The tilting system is hereby characterized according to the invention in that the optical elements necessary for the swinging are arranged in an axis of rotation and the at least one prism is provided for image reversion.

A short mechanical structural length of the tilting system can also be provided by this embodiment of the tilting system, with the requirement of being able to swing the tilting system in the desired way--for example, by 180°--remaining the same.

It is assured simultaneously that when swinging into the desired position, a rotation of the image does not occur, but rather the image remains upright during the entire movement.

A basic element of the tilting system according to the invention consists of the fact that the optical elements necessary for the swinging movement lie in one axis of rotation and that the

rotation of the image that occurs when swinging is eliminated by an additional prism for image reversion which is incorporated in the beam path.

Advantageously, the at least one prism for image reversion can be formed as a Schmidt-Pechan prism for this purpose. Such a prism generates a mirrored image. For example, it can be achieved with such a prism that with a stationary input image and rotation of this prism in the beam path, the output image is rotated at double the velocity. A Schmidt-Pechan prism additionally has the advantage that it can be used also in a finite beam path. The prism preferably comprises two prisms which are advantageously cemented into one mount, since a parallelly running air gap must be present between the two prisms. A beam that enters and a beam that exits will not be shifted relative to one another with such a prism.

If the tilting system is configured as a  $180^\circ$  tilting system, it is possible, by employing a Schmidt-Pechan prism, to provide swinging by plus or minus  $90^\circ$  via a single axis of rotation. The entering image is reproduced by a rotational movement of the prism around its own axis at a double angle. Thus it is possible to bring back an image that has been rotated, for example,  $90^\circ$ , into a  $0^\circ$  position by a  $45^\circ$  rotation of this prism.

Preferably, the at least one prism for image reversion can be arranged in the beam path downstream of the optical elements necessary for swinging.

For example, it can be provided that the prism for image reversion is arranged in a rotatable manner around its own axis of rotation.

Preferably, it can be additionally provided that at least one deviating prism, and in particular, two deviating prisms is/are provided in the beam path for pivoting. Again, the invention is not limited to specific types of deviating prisms. For example, at least one deviating prism can be

formed as a  $90^\circ$  prism, as has already been explained in detail above. In another configuration, at least one deviating prism can be formed as a  $90^\circ$  ridge prism. Such a  $90^\circ$  ridge prism corresponds to the basic form of the  $90^\circ$  prism and additionally has a ridge ( $90^\circ$  edge) at the reflection surface, and this mirrors the image one more time, so that an image rotated by  $180^\circ$  is formed.

If such deviating prisms are used, an image rotation of plus or minus  $90^\circ$  usually occurs by swinging the  $90^\circ$  prism. This image rotation can be cancelled by rotating the prism for image reversion, for example, the Schmidt-Pechan prism by plus or minus  $45^\circ$  in the suitable direction. In such a case, a 2:1 coupling of the plus or minus  $90^\circ$  swinging axis and the axis of rotation of the Schmidt-Pechan prism is required. A ridge introduced on the  $90^\circ$  prism cancels the reflection occurring in the Schmidt-Pechan prism.

Preferably, the at least one prism for image reversion and the optical elements necessary for swinging can be arranged in one and the same swinging axis. The structural length of the tilting system can thereby be reduced by tilting the beam path into the width of the tilting system.

In another configuration, two deviating prisms can be provided for each beam path, wherein the at least one prism for image reversion is provided in the beam path between the two deviating prisms.

Preferably, two deviating prisms can be provided for each beam path, wherein one deviating prism is formed as a  $90^\circ$  prism and one deviating prism is formed as a  $90^\circ$  ridge prism, and wherein the  $90^\circ$  prism is provided in the beam path upstream of the  $90^\circ$  ridge prism, as viewed from the entrance region of the tilting system. In another configuration, two deviating prisms can be provided for each beam path, wherein again one deviating prism is formed as a  $90^\circ$  prism and one deviating prism is formed as a  $90^\circ$  ridge prism, and wherein the  $90^\circ$  ridge prism is provided in

the beam path upstream of the 90° prism, as viewed from the entrance region of the swing-in tube. In the last-named case, the axis of rotation lies closer to the entrance region of the tilting system.

Preferably, the tilting system for the passage of two beam paths can be formed, whereby in each beam path at least one objective device and at least one optical device are provided, and whereby a device for adjusting the distance between the two beam paths is provided in the exit region of the tilting system. In this way, stereoscopic beam paths can be generated in the tilting system—similar to those in the aspects of the invention described above. In this case also, the invention is not limited to a specific device for adjusting the distance between the two beam paths, so that in this respect, in addition to the examples described below, reference is made in particular also to the corresponding embodiments in connection with the other aspects of the invention and reference is made to these herewith.

For example, the device can have at least one rhombic prism for adjusting the distance for each beam path. For this purpose, in particular, refer to the embodiments for the tilting system according to the first aspect of the invention. The objective device provided in the tilting system can be provided in the beam path, for example, upstream or downstream of the first deviating prism, as viewed from the entrance region of the tilting system. In another configuration, it can be provided that the objective device has at least one positive and at least one negative objective element, that the positive objective element is provided in the beam path upstream or downstream from the first deviating prism, as viewed from the entrance region of the tilting system, and that the negative objective element is provided in the beam path upstream of the device for adjusting the distance between the two beam paths, as viewed from the entrance region of the tilting system.

The tilting system according to the above-described three aspects of the invention is

particularly formed for two beam paths to pass through, wherein an objective device and at least one optical device, which have the above-described features, are provided in each beam path. In this way, the tilting system is particularly advantageously able to generate stereoscopic beam paths, so that the tube can be utilized in particular as a binocular body in a stereoscopic observation device, for example, in a stereomicroscope or the like. In such a case, preferably two identical beam paths are provided in the tilting system, in which the identical optical elements are provided for each of these and are identically arranged.

Preferably, the ocular device can be a component of the tilting system. Of course, it is also conceivable that the ocular device is formed as a component independent of the tilting system. In such a case, the tilting system must be combined in a suitable way with the ocular device during operation; for example, it must interact optically.

The tilting system is particularly advantageously formed as a  $180^\circ$  tilting system. Of course, other types of system are also conceivable. For example, it is also possible that the tilting system is formed as a  $60^\circ$ ,  $90^\circ$ , or  $120^\circ$  tilting system or the like.

Advantageously, the tilting system also has an interface for fastening to an observation device. In this way, it is possible to place the tube on an observation device. The interface may have, for example, an "annular dovetail" introduced on the tilting system. In such a case, a corresponding counter-piece can be provided, which sits solidly on the housing of the observation device. The term "annular dovetail" stands for a dovetail connection which is arranged on a circular path. The tilting system is placed on the observation device and then rigidly joined via suitable fastening means, for example via a setscrew sitting thereon. The tilting system, in addition, can have suitable securing means--for example, a corresponding chamfer or slot--which secures the tilting system against



twisting.

A tilting system as described above can be used, for example, in an observation device, for example, in a microscope, e.g., an operating microscope or the like. Of course, it is also possible that the tilting system is applied in other observation devices, for example, in a telescope or the like.

According to another aspect of the invention, an observation device, in particular a microscope or a telescope is provided, with a base body and a tilting system according to the invention, as described above.

A microscope designed as an operating microscope is described below as an example, in which a corresponding tilting system is embodied in the form of a swing-in tube. An operating microscope basically comprises several components: the tube, the base body and possibly also a stand. Additionally, it is possible in many operating microscopes to connect different added modules, such as, for example, a co-observer tube for an assistant observer, a videocamera for documentation or the like.

Several assemblies can also be combined inside the base body, such as, e.g., an illumination device, a magnification device, the principal objective, or the like.

The characteristic dimension for the principal objective is its focal depth, which establishes the working distance from the operating microscope to the surgical field and thus has an influence on the total magnification of the microscope.

After the principal objective, the magnification device usually follows. For example, this can involve a device that changes the magnification by which means different magnifications can be adjusted. In many cases of application, one stepwise changing device is fully sufficient. However, it

is also possible to use pancratic magnification systems as the magnification device, by means of which a step-free magnification (zoom system) is possible.

In addition, such an operating microscope generally makes available an ocular device, which can be formed either as a component of the swing-in tube, or as a device independent of the swing-in tube. The task of the ocular device is generally the post-magnification of the intermediate image forming in the tube, as well as perhaps compensating for the possible defective eyesight of the user of such a microscope.

Please replace the paragraph bridging pages 27 and 28 with the following replacement paragraph:

This device 39 is formed as a lens system 40 according to Figures 2 and 3. Lens system 40 is incorporated in the axis of rotation 37 between the 90° prism 33 or 34 and the 180° prism 31 or 32 and produces a beam path into infinity in the rotating range of the first axis of rotation 37. Therefore, it is possible in this range to execute a linear displacement without causing a shift of the image position. Now, in order to adjust the desired distance between the beam paths 14 ~~und~~ and 15 in the exit region 13 of the swing-in tube 10, the optics downstream of lens system 40 must be moved synchronously outward or inward for both beam paths 14 ~~und~~ and 15. The optical elements affected by this are enclosed by a circle 45 in Figure 1 ~~2~~ for purposes of representation.

Please replace the fourth paragraph on page 29 with the following replacement paragraph:

Prisms 60 or 63 for image reversion are provided each time for image rotation. In the example of embodiment according to Figure 9 11, these prisms 60 or 63 are each formed as two poro prisms of the second type 61, 62 in the beam path 14 or 64, 65 in the beam path 15. The image is completely rotated by these poro prisms of the second type.